

Java Comments

Comments can be used to explain Java code, and to make it more readable. It can also be used to prevent execution when testing alternative code.

Single-line Comments

Single-line comments start with two forward slashes (//).

Any text between // and the end of the line is ignored by Java (will not be executed)

Java Multi-line Comments

Multi-line comments start with /* and ends with */.

Any text between /* and */ will be ignored by Java.

Java Conditions and If Statements

- Use if to specify a block of code to be executed, if a specified condition is true
- Use else to specify a block of code to be executed, if the same condition is false
- Use else if to specify a new condition to test, if the first condition is false
- Use switch to specify many alternative blocks of code to be executed

The if Statement

Use the if statement to specify a block of Java code to be executed if a condition is true.

The else Statement

Use the else statement to specify a block of code to be executed if the condition is false.

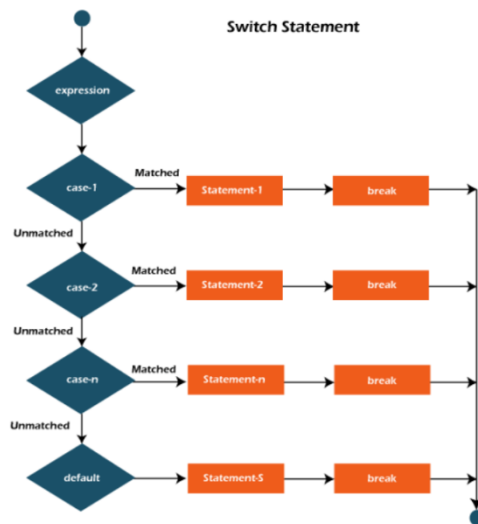
The else if Statement

Use the else if statement to specify a new condition if the first condition is false.

Example:

```
public class Main {  
  
    public static void main(String[] args) {  
  
        int time = 22;  
  
        if (time < 10) {  
  
            System.out.println("Good morning.");  
  
        } else if (time < 18) {  
  
            System.out.println("Good day.");  
  
        } else {  
  
            System.out.println("Good evening.");  
  
        }  
  
    }  
  
}
```

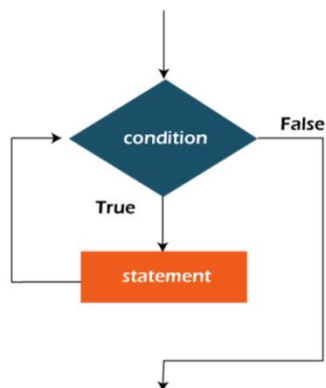
Flowchart of Switch Statement



Java While Loop

The Java *while* loop is used to iterate a part of the program repeatedly until the specified Boolean condition is true. As soon as the Boolean condition becomes false, the loop automatically stops.

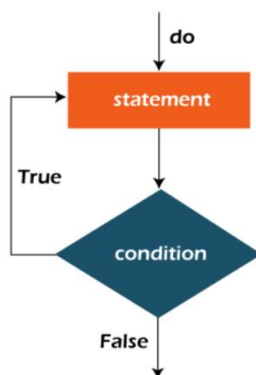
The while loop is considered as a repeating if statement. If the number of iteration is not fixed, it is recommended to use the while loop.



Java do-while Loop

The Java *do-while loop* is used to iterate a part of the program repeatedly, until the specified condition is true. If the number of iteration is not fixed and you must have to execute the loop at least once, it is recommended to use a do-while loop.

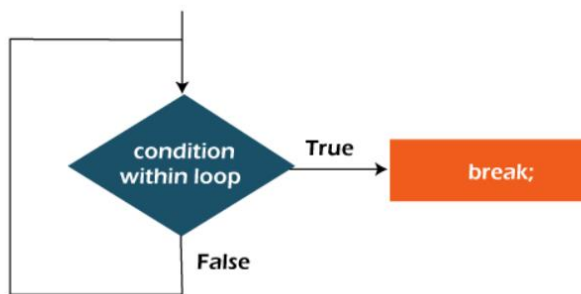
Java do-while loop is called an **exit control loop**. Therefore, unlike while loop and for loop, the do-while check the condition at the end of loop body. The Java *do-while loop* is executed at least once because condition is checked after loop body.



Java Break Statement

When a break statement is encountered inside a loop, the loop is immediately terminated and the program control resumes at the next statement following the loop.

The Java *break* statement is used to break loop or switch statement. It breaks the current flow of the program at specified condition. In case of inner loop, it breaks only inner loop.



Java Continue Statement

The `continue` statement is used in loop control structure when you need to jump to the next iteration of the loop immediately. It can be used with `for` loop or `while` loop.

The Java *`continue` statement* is used to continue the loop. It continues the current flow of the program and skips the remaining code at the specified condition. In case of an inner loop, it continues the inner loop only.